



For
Week Ending
December 4, 1971

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

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CURRENT TRENDS

IMMUNIZATION SURVEY – United States 1971

The 1971 United States Immunization Survey was conducted in September by the Bureau of the Census in cooperation with the Center for Disease Control (1). Information was obtained on the measles, rubella, poliomyelitis, and diphtheria-tetanus-pertussis (DTP) immunization status of specified age groups. The data were collected by the Bureau through a supplemental questionnaire attached to their monthly Current Population Survey which regularly obtains information from 37,500 randomly selected households in the United States.

The trends for the immunization levels of preschool children (1-4 years of age) against measles, polio, and DTP are shown in Figures 1-3 and Tables 1-3. All three immunization levels have increased significantly over their respective 1970 levels. Measles showed the sharpest increase, returning almost to its high in 1969. The level of immunization against polio increased for the first time since 1966, while DTP

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reached its highest level since the survey began in 1962. The proportion of persons 1-4 years of age who have received rubella vaccine has increased from 37.2 percent in 1970 to 51.2 in 1971.

The immunization levels of preschool children residing within central city poverty areas (population $\geq 250,000$) have also increased significantly (Table 4).

(Continued on page 436)

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	48th WEEK ENDED		MEDIAN 1966 - 1970	CUMULATIVE, FIRST 48 WEEKS		
	December 4, 1971	December 5, 1970		1971	1970	MEDIAN 1966 - 1970
Aseptic meningitis	108	123	56	4,860	5,827	3,280
Brucellosis	—	1	7	153	197	217
Diphtheria	11	13	8	182	414	187
Encephalitis, primary:						
Arthropod-borne & unspecified	31	37	33	1,428	1,475	1,475
Encephalitis, post-infectious	3	4	4	313	356	440
Hepatitis, serum	208	151	93	8,118	6,771	4,282
Hepatitis, infectious	1,328	1,086	833	56,091	52,256	42,176
Malaria	25	71	54	2,736	3,225	2,201
Measles (rubeola)	283	686	646	73,075	43,973	43,973
Meningococcal infections, total:						
Civilian	32	44	44	2,057	2,271	2,356
Military	29	36	38	1,840	1,995	2,159
Mumps	3	8	2	217	276	237
1,900	2,401	—	—	113,903	93,191	—
Poliomyelitis, total	—	1	1	11	27	43
Paralytic	—	1	—	8	27	32
Rubella (German measles)	301	569	375	42,012	53,689	46,991
Tetanus	4	3	3	103	126	153
Tularemia	3	3	1	171	144	156
Typhoid fever	9	14	6	393	333	352
Typhus, tick-borne (Rky. Mt. spotted fever)	2	2	2	400	337	297
Rabies in animals	51	62	61	3,632	2,813	3,138

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.					Cum.
		Psittacosis:	Rabies in Man:	Rubella congenital syndrome:	Trichinosis: N.Y. Ups.—1	
Anthrax:	4	Psittacosis:	15	Rabies in Man:	108	35
Botulism:	15	Rabies in Man:	108	Rubella congenital syndrome:	41	53
Leprosy:	108	Rubella congenital syndrome:	41	Trichinosis: N.Y. Ups.—1	1	89
Leptospirosis: Ala.—1, Fla.—4, Okla.—1	108	Trichinosis: N.Y. Ups.—1	1	Typhus, murine:	1	23
Plague:	1	Typhus, murine:	1			

IMMUNIZATION SURVEY - (Continued from front page)

(Reported by the Immunization Branch, State and Community Services Division, CDC.)

Reference

1. Center for Disease Control: United States Immunization Survey 1971, in press

Figure 1

DIPHTHERIA-TETANUS-PERTUSSIS IMMUNIZATION
1-4 YEAR AGE GROUP
UNITED STATES 1962-1971

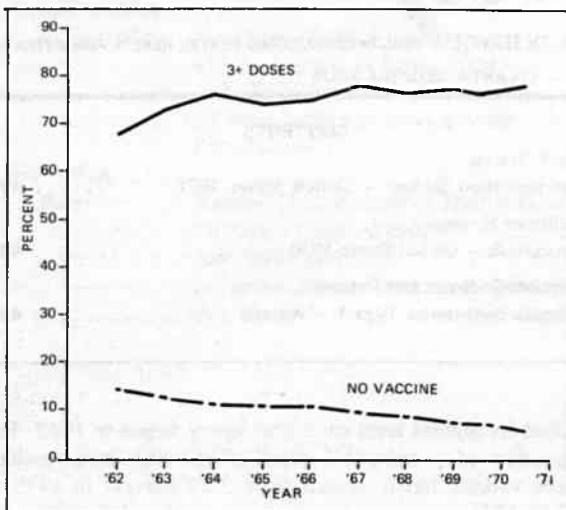


Figure 2
POLIO IMMUNIZATION, 1-4 YEAR AGE GROUP
UNITED STATES 1959-1971

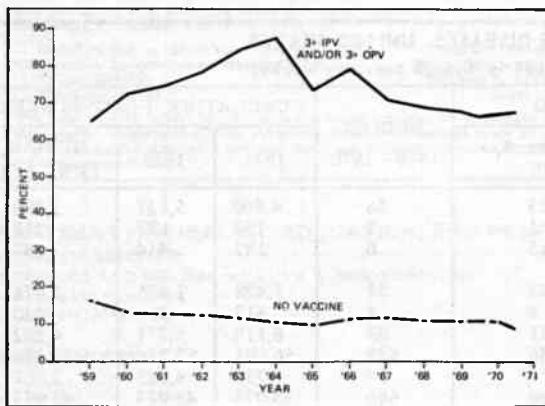


Table 1
Percent of Population, 1-4 Years of Age, Receiving Specified Doses of Diphtheria-Tetanus-Pertussis Vaccine
United States 1962-1971

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
3+ Doses	67.8	72.9	76.0	73.9	74.5	77.9	76.5	77.4	76.1	78.7
No Doses	14.1	12.7	11.4	10.9	10.8	9.3	8.6	7.2	7.0	5.8

Table 2
Percent of Population, 1-4 Years of Age, Receiving Specified Doses of Polio Vaccine
United States 1959-1971

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
3+ OPV and/or 3+ IPV	65.0	72.2	74.3	78.4	84.1	87.6	73.9	78.9	70.9	68.3	67.7	65.9	67.3
No Doses	16.2	13.4	12.9	12.3	11.9	10.2	9.9	11.3	11.7	10.5	10.2	10.8	8.6

Figure 3
HISTORY OF MEASLES VACCINE, MEASLES INFECTION,
AND MEASLES VACCINE AND/OR INFECTION,
1-4 YEAR AGE GROUP
UNITED STATES 1964-1971

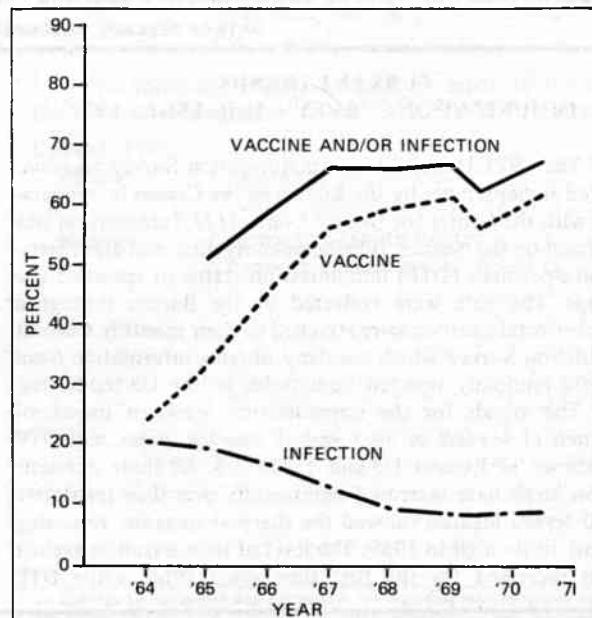


Table 3
Percent of Population, 1-4 Years of Age, with Measles Vaccine,
Measles Infection, Measles Vaccine and/or Infection
United States 1964-1971

	1964	1965	1966	1967	1968	1969	1970	1971
Vaccine	24.0	33.2	45.4	56.4	58.8	61.4	57.2	61.0
Infection	20.5	19.7	16.7	12.8	9.7	8.3	8.1	8.7
Vaccine and/or Infection	—	51.0	59.0	66.2	66.0	66.9	62.3	66.6

Table 4
Percent of Population, 1-4 Years of Age, in Poverty Areas
Within Central Cities $\geq 250,000$ Receiving Specified Vaccines
United States 1969-1971

	Vaccine			1969	1970	1971
	Measles	Polio (3+ OPV and/or 3+ IPV)	DTP (3+ Doses)			
Measles	46.1	55.1	65.1	41.1	50.9	48.7
Polio (3+ OPV and/or 3+ IPV)	55.1	65.1	55.8	—	41.5	54.3
DTP (3+ Doses)	55.1	65.1	55.8	—	41.5	58.4
Rubella	—	—	—	—	—	52.0

**SURVEILLANCE SUMMARY
BRUCELLOSIS — United States 1970**

In the United States in 1970, a total of 230 cases of brucellosis in humans were reported, a decrease of three from the total reported in 1969. One outbreak in an abattoir accounted for 53 of the 230 cases. CDC received case surveillance reports on 202 cases (88 percent). Recrudescence of acute brucellosis was noted in 22 of the 202 reports (11 percent).

Thirty-four states reported cases in 1970, compared with 30 in 1969 and 35 in 1968. As in 1969, California, Iowa, and Virginia accounted for more than 51 percent of the reported cases. California, Iowa, Oklahoma, Texas, and Virginia reported 66 percent of the year's total cases. The greatest increase in cases was reported from Iowa, while Virginia reported the greatest decrease. Delaware and Nevada did not record any cases for this period; three states have reported no cases since 1965.

One-third of 185 cases for which date of onset was known occurred in the spring. Approximately two-thirds of the cases occurred between April and August. More cases had onset in March than in any other month.

Brucellosis remains a disease that affects young and middle-aged adults, primarily males. Men between the ages of 20 and 55 years accounted for 145 (71 percent) of the 205 cases where age and sex were reported; 169 of the 205 patients (82 percent) were males.

In 192 cases where symptoms were recorded, fever, chills, sweating, malaise, weakness, body aches, headache, and weight loss predominated. Abscesses were reported in

two cases, and osteomyelitis was found in one case.

Of 86 patients whose blood was known to have been cultured, 44 (51 percent) were positive for *Brucella*. Of the 44 isolates, 26 were *B. suis*, 12 were *B. abortus*, three were *B. melitensis*, two were *B. canis*, and one was unknown. Of the 202 reports, 85 (42 percent) recorded swine as the most probable source of infection, 21 (10 percent) were associated with cattle only, and 31 (15 percent) mentioned cattle and swine. Only six cases (3 percent) were attributed to raw milk ingestion. Seven patients had eaten imported cheese; however, since there was no follow-up investigation, these cases are listed with those 47 cases (23 percent) in which the source of infection was unknown.

In 1970, 116 of the 202 case reports received (57 percent) were on persons working in packing plants (Table 5). Swine were the source of infection in 78 of these cases (67 percent). Most of these people worked in "kill areas," although others worked in cooler rooms and in finished-product preparation areas. Several infections occurred in personnel such as maintenance men, mechanics, and a salesman, who did not handle raw meat. Livestock producers accounted for 16 (8 percent) of the total number of cases. The most likely source of exposure for over half of these 16 people was cattle. Two of the 202 cases (1 percent) involved veterinarians.

(Reported by the Office of Veterinary Public Health Services, Epidemiology Program, CDC.)

**Table 5
Occupation and Most Probable Source of Infection for 202* Cases of Human Brucellosis, United States, 1970****

Classification	Occupation	Most Probable Source of Infection											
		Swine	Cattle	Sheep	Cattle or Swine	Swine, Cattle or Sheep and Goats	Raw Milk	Strain 19 Vaccine	Laboratory Acquired	Unknown	Total	Percent of Total	Recrudescence
Meat Processing Industry	Packing House	77	10		19	1				6	113	55.9	10
	Rendering Plant	1				2					3	1.5	
	Government Inspector	1			2						3	1.5	
Livestock Industry	Livestock Producer	2	10	1	2		1				16	7.9	3
	Livestock Market	1			1			1			1	0.5	
	Veterinarian				1						2	1.0	
Other Categories	Housewife									7	7	3.5	
	Student or Child									2	4	2.0	
	Laboratory Workers								6		6	3.0	
	Other	3	1		7		3		1	18	33	16.3	9
	Unknown				1					14	14	6.9	
Total		85	21	1	31	3	6	1	7	47	202	100.0	22
Percent of Total		42.1	10.4	0.5	15.3	1.5	3.0	0.5	3.5	23.3	100.0		

*202 reports received with occupation and source data of 230 cases reported

**Provisional data

**EPIDEMIOLOGIC NOTES AND REPORTS
SHIGELLA DYSENTERIAE TYPE 1 — Arizona**

On Sept. 10, 1971, a 68-year-old Yaqui Indian woman from Tucson, Arizona, had onset of bloody diarrhea, abdominal cramps, and dehydration. Because her symptoms became

more severe, she was hospitalized and treated with gentamicin sulfate, cephalothin, and intravenous fluids. She failed to re-
(Continued on page 442)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

DECEMBER 4, 1971 AND DECEMBER 5, 1970 (48th WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPH- THERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post In- fectious	Serum	Infectious			
	1971	1971	1971	1971	1970	1971	1971	1971	1970	1971	Cum. 1971
UNITED STATES.....	108	-	11	31	37	3	208	1,328	1,086	25	2,736
NEW ENGLAND.....	-	-	-	-	2	-	6	80	129	1	82
Maine.....	-	-	-	-	-	-	-	8	24	-	5
New Hampshire.*	-	-	-	-	-	-	-	4	6	-	-
Vermont.....	-	-	-	-	1	-	-	14	13	-	1
Massachusetts.....	-	-	-	-	-	-	2	30	57	-	57
Rhode Island.....	-	-	-	-	-	-	3	7	10	-	8
Connecticut.....	-	-	-	-	1	-	1	17	19	1	11
MIDDLE ATLANTIC.....	39	-	-	5	2	1	93	202	194	1	267
New York City.....	-	-	-	-	-	-	39	46	41	-	24
New York, Up-State..	9	-	-	3	-	-	18	50	38	1	73
New Jersey.....	25	-	-	-	1	-	29	48	75	-	113
Pennsylvania.....	5	-	-	2	1	1	7	58	40	-	57
EAST NORTH CENTRAL.....	26	-	-	11	12	-	27	235	160	8	188
Ohio.....	6	-	-	5	2	-	9	44	54	2	25
Indiana.....	7	-	-	3	-	-	1	5	13	-	14
Illinois.*	2	-	-	2	1	-	9	91	26	6	59
Michigan.....	10	-	-	1	4	-	6	87	61	-	55
Wisconsin.*	1	-	-	-	5	-	2	8	6	-	35
WEST NORTH CENTRAL.....	4	-	2	-	2	-	1	62	35	1	248
Minnesota.....	-	-	-	-	-	-	1	6	4	-	36
Iowa.....	-	-	-	-	1	-	-	7	9	-	26
Missouri.....	-	-	-	-	-	-	-	16	3	1	28
North Dakota.....	-	-	-	-	-	-	-	5	4	-	3
South Dakota.....	-	-	2	-	-	-	-	13	1	-	2
Nebraska.....	-	-	-	-	-	-	-	-	-	-	14
Kansas.....	4	-	-	-	1	-	-	15	14	-	139
SOUTH ATLANTIC.....	7	-	-	4	11	-	24	192	103	1	407
Delaware.....	-	-	-	-	-	-	-	5	2	-	2
Maryland.....	-	-	-	-	1	-	4	19	17	-	52
Dist. of Columbia.....	-	-	-	-	-	-	-	1	1	-	4
Virginia.....	1	-	-	2	5	-	4	29	24	-	67
West Virginia.....	-	-	-	1	-	-	-	14	7	-	7
North Carolina.....	1	-	-	-	1	-	5	25	13	1	143
South Carolina.....	-	-	-	1	-	-	-	3	11	-	20
Georgia.....	-	-	-	-	-	-	-	21	1	-	68
Florida.....	5	-	-	-	4	-	11	75	27	-	44
EAST SOUTH CENTRAL.....	6	-	4	1	3	-	3	54	87	1	291
Kentucky.....	1	-	-	1	-	-	-	14	38	-	259
Tennessee.....	4	-	-	-	-	-	3	30	37	-	-
Alabama.....	-	-	4	-	3	-	-	3	10	-	22
Mississippi.....	1	-	-	-	-	-	-	7	2	1	10
WEST SOUTH CENTRAL.....	4	-	5	3	1	1	8	126	77	1	526
Arkansas.....	-	-	-	-	-	1	-	4	-	-	20
Louisiana.*	2	-	2	-	-	-	-	3	20	-	39
Oklahoma.....	-	-	-	2	1	-	1	21	5	-	71
Texas.....	2	-	3	1	-	-	7	98	52	1	396
MOUNTAIN.....	2	-	-	-	-	-	6	81	47	1	161
Montana.....	1	-	-	-	-	-	-	14	7	-	2
Idaho.....	-	-	-	-	-	-	-	5	11	-	6
Wyoming.....	-	-	-	-	-	-	2	-	1	-	3
Colorado.....	-	-	-	-	-	-	3	8	-	1	124
New Mexico.....	-	-	-	-	-	-	-	8	9	-	11
Arizona.....	1	-	-	-	-	-	-	24	10	-	10
Utah.....	-	-	-	-	-	-	1	9	9	-	3
Nevada.....	-	-	-	-	-	-	-	13	-	-	2
PACIFIC.....	20	-	-	7	4	1	40	296	254	10	566
Washington.....	-	-	-	1	1	-	2	39	45	-	2
Oregon.....	1	-	-	1	-	-	1	39	47	-	20
California.....	19	-	-	5	3	-	37	216	154	10	482
Alaska.....	---	---	---	---	---	---	---	---	---	---	6
Hawaii.....	-	-	-	-	-	-	-	2	8	-	56
Puerto Rico.....	---	---	---	---	---	---	---	---	27	---	24
Virgin Islands.....	-	-	-	-	-	-	-	1	-	-	1

*Delayed reports: Aseptic meningitis: La. 2

Brucellosis: Ill. 4

Hepatitis, serum: Ill. 3

Hepatitis, infectious: N.H. 2, Ill. 25

Malaria: Wis. 5

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
DECEMBER 4, 1971 AND DECEMBER 5, 1970 (48th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		POLIOMYELITIS		
	1971	Cumulative		1971	Cumulative		1971	Cum.	Total	Paralytic	Cum. 1971
		1971	1970		1971	1970		1971	1971	1971	
UNITED STATES.....	283	73,075	43,973	32	2,057	2,271	1,900	113,903	-	-	8
NEW ENGLAND.....	4	3,507	1,116	1	97	98	119	6,812	-	-	-
Maine.*.....	2	1,483	382	-	9	5	22	1,266	-	-	-
New Hampshire.*.....	1	214	61	-	21	9	3	675	-	-	-
Vermont.....	-	121	8	-	-	8	12	451	-	-	-
Massachusetts.....	-	259	438	1	36	39	38	1,689	-	-	-
Rhode Island.....	1	241	120	-	3	6	13	1,265	-	-	-
Connecticut.....	-	1,189	107	-	28	31	31	1,466	-	-	-
MIDDLE ATLANTIC.....	19	7,697	5,175	2	271	421	60	6,687	-	-	-
New York City.....	4	3,800	1,026	-	55	87	41	1,973	-	-	-
New York, Up-State.....	-	697	377	-	83	78	NN	NN	-	-	-
New Jersey.*.....	14	1,269	1,725	1	60	177	5	1,789	-	-	-
Pennsylvania.....	1	1,931	2,047	1	73	79	14	2,925	-	-	-
EAST NORTH CENTRAL.....	107	16,432	10,330	6	240	260	551	44,852	-	-	-
Ohio.....	3	4,058	3,880	3	78	92	143	8,476	-	-	-
Indiana.....	28	2,900	278	1	20	23	28	5,326	-	-	-
Illinois.*.....	12	3,204	3,171	1	67	67	41	4,803	-	-	-
Michigan.....	38	2,561	1,822	1	60	66	96	10,220	-	-	-
Wisconsin.....	26	3,709	1,179	-	15	12	243	16,027	-	-	-
WEST NORTH CENTRAL.....	48	7,202	3,924	4	147	118	353	8,874	-	-	-
Minnesota.....	-	57	40	-	27	19	12	1,294	-	-	-
Iowa.....	46	2,610	1,172	1	13	14	294	4,780	-	-	-
Missouri.....	-	2,606	1,277	2	51	63	5	1,082	-	-	-
North Dakota.....	-	240	321	-	6	5	12	381	-	-	-
South Dakota.....	-	221	104	-	6	1	12	269	-	-	-
Nebraska.....	-	69	941	-	15	8	6	208	-	-	-
Kansas.....	2	1,399	69	1	29	8	12	860	-	-	-
SOUTH ATLANTIC.....	41	8,770	7,448	9	369	447	115	8,217	-	-	1
Delaware.....	-	42	268	-	2	3	1	183	-	-	-
Maryland.....	1	555	1,387	1	52	45	11	743	-	-	-
Dist. of Columbia.....	-	16	345	-	14	3	-	99	-	-	-
Virginia.....	1	1,613	2,069	2	44	46	11	1,042	-	-	-
West Virginia.....	8	560	331	1	12	13	52	2,405	-	-	-
North Carolina.....	1	1,958	917	4	70	96	NN	NN	-	-	-
South Carolina.....	2	925	614	-	20	46	2	900	-	-	-
Georgia.....	-	1,133	18	-	25	41	-	11	-	-	-
Florida.....	28	1,968	1,499	1	130	154	38	2,834	-	-	-
EAST SOUTH CENTRAL.....	21	8,441	1,693	1	187	161	146	8,547	-	-	-
Kentucky.....	2	3,970	918	-	53	59	39	2,481	-	-	-
Tennessee.....	-	1,025	444	1	75	66	96	4,906	-	-	-
Alabama.*.....	9	1,963	224	-	33	24	9	1,005	-	-	-
Mississippi.....	10	1,483	107	-	26	12	2	155	-	-	-
WEST SOUTH CENTRAL.....	11	12,668	8,870	1	179	281	135	9,209	-	-	3
Arkansas.....	-	778	30	-	5	23	5	155	-	-	-
Louisiana*.....	2	1,703	196	1	67	70	2	146	-	-	-
Oklahoma.....	-	757	804	-	10	22	7	195	-	-	-
Texas.....	9	9,430	7,840	-	97	166	121	8,713	-	-	3
MOUNTAIN.....	4	3,504	2,112	-	64	51	100	4,671	-	-	2
Montana.....	-	925	101	-	7	1	21	434	-	-	-
Idaho.....	-	274	479	-	11	7	9	165	-	-	-
Wyoming.....	-	85	11	-	2	2	14	391	-	-	-
Colorado.....	1	841	192	-	7	17	22	1,559	-	-	1
New Mexico.....	1	401	278	-	5	2	10	711	-	-	-
Arizona.....	2	635	994	-	9	16	17	1,221	-	-	-
Utah.*.....	-	336	36	-	19	5	7	190	-	-	-
Nevada.....	-	7	21	-	4	1	-	-	-	-	1
PACIFIC.....	28	4,854	3,305	8	503	434	321	16,034	-	-	2
Washington.....	16	1,109	703	-	33	47	111	6,511	-	-	1
Oregon.....	-	378	410	1	41	30	43	1,623	-	-	1
California.....	10	2,792	1,862	7	419	353	159	6,877	-	-	-
Alaska.....	---	63	141	---	1	-	---	99	---	---	-
Hawaii.....	2	512	189	-	9	4	8	924	-	-	-
Puerto Rico.....	---	582	972	---	10	5	---	1,173	---	---	-
Virgin Islands.....	-	17	8	-	3	2	77	-	-	-	-

*Delayed reports: Measles: Me. 5, N.H. 1, Ill. 4

Meningococcal infections: N.J. delete 1, Ala. 1, La. delete 2

Mumps: N.H. 2, Ill. 8, Utah 5

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

DECEMBER 4, 1971 AND DECEMBER 5, 1970 (48th WEEK) - CONTINUED

AREA	RUBELLA		TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971
UNITED STATES.....	301	42,012	4	103	3	171	9	393	2	400	51	3,632
NEW ENGLAND.....	17	1,832	—	6	—	1	—	17	—	5	2	210
Maine.....	—	271	—	—	—	—	—	1	—	—	2	183
New Hampshire.....	—	48	—	2	—	—	—	—	—	—	—	3
Vermont.....	—	102	—	—	—	—	—	—	—	—	—	15
Massachusetts.....	3	852	—	1	—	—	—	12	—	3	—	8
Rhode Island.....	—	107	—	—	—	—	—	—	—	2	—	1
Connecticut.....	14	452	—	3	—	1	—	4	—	—	—	—
MIDDLE ATLANTIC.....	8	2,683	2	10	—	—	1	92	1	38	1	151
New York City.....	2	593	1	6	—	—	—	22	—	1	—	—
New York, Up-State..	—	434	—	1	—	—	1	15	—	17	1	130
New Jersey.....	5	630	—	1	—	—	—	8	—	9	—	—
Pennsylvania.....	1	1,026	1	2	—	—	—	47	1	11	—	21
EAST NORTH CENTRAL....	90	9,162	—	13	2	8	3	57	—	20	6	380
Ohio.....	3	1,024	—	2	—	1	—	21	—	15	—	109
Indiana.....	7	2,169	—	2	—	—	—	6	—	—	1	81
Illinois.*.....	7	1,338	—	6	2	4	—	14	—	3	1	70
Michigan.....	55	2,909	—	3	—	1	3	10	—	2	—	46
Wisconsin.....	18	1,722	—	—	—	2	—	6	—	—	4	74
WEST NORTH CENTRAL....	9	3,287	—	6	—	19	—	4	1	9	17	1,016
Minnesota.....	1	281	—	3	—	—	—	—	—	—	9	242
Iowa.....	4	724	—	1	—	—	—	—	—	2	2	220
Missouri.....	1	1,370	—	2	—	15	—	4	1	5	1	143
North Dakota.....	—	96	—	—	—	—	—	—	—	—	5	177
South Dakota.....	—	99	—	—	—	1	—	—	—	—	—	120
Nebraska.....	3	96	—	—	—	—	—	—	—	—	—	8
Kansas.....	—	621	—	—	—	3	—	—	—	2	—	106
SOUTH ATLANTIC.....	21	3,432	—	25	—	23	—	51	—	205	6	399
Delaware.....	—	50	—	—	—	—	—	1	—	2	—	—
Maryland.....	—	164	—	1	—	4	—	4	—	31	—	2
Dist. of Columbia...	—	8	—	3	—	—	—	4	—	—	—	—
Virginia.....	1	225	—	3	—	9	—	15	—	35	—	74
West Virginia.....	3	710	—	—	—	—	—	4	—	4	2	122
North Carolina.....	3	52	—	2	—	4	—	4	—	106	—	7
South Carolina.....	2	453	—	1	—	—	—	2	—	14	—	—
Georgia.....	—	1	—	2	—	4	—	2	—	13	3	139
Florida.....	12	1,769	—	13	—	2	—	15	—	—	1	55
EAST SOUTH CENTRAL....	43	3,999	2	16	1	13	3	48	—	63	6	334
Kentucky.....	2	1,735	1	3	—	2	—	11	—	13	3	169
Tennessee.....	35	1,969	—	7	—	7	1	26	—	34	1	103
Alabama.....	6	219	—	4	1	3	—	8	—	9	2	58
Mississippi.....	—	76	1	2	—	1	2	3	—	7	—	4
WEST SOUTH CENTRAL....	24	4,978	—	16	—	62	2	41	—	48	10	719
Arkansas.*.....	—	338	—	1	—	25	—	11	—	6	2	97
Louisiana.....	1	290	—	3	—	8	—	6	—	1	3	46
Oklahoma.....	—	75	—	2	—	17	—	3	—	28	4	273
Texas.....	23	4,275	—	10	—	12	2	21	—	13	1	303
MOUNTAIN.....	7	2,027	—	2	—	40	—	9	—	12	—	72
Montana.....	—	116	—	—	—	2	—	—	—	3	—	—
Idaho.....	—	43	—	1	—	1	—	—	—	4	—	—
Wyoming.....	—	860	—	—	—	—	—	—	—	—	—	12
Colorado.....	1	309	—	—	—	—	—	2	—	2	—	11
New Mexico.....	—	239	—	—	—	—	—	5	—	1	—	9
Arizona.....	4	376	—	1	—	—	—	2	—	—	—	25
Utah.....	2	69	—	—	—	37	—	—	—	1	—	10
Nevada.....	—	15	—	—	—	—	—	—	—	1	—	5
PACIFIC.....	82	10,612	—	9	—	5	—	74	—	—	3	351
Washington.....	10	1,482	—	1	—	—	—	1	—	—	—	—
Oregon.....	7	788	—	1	—	3	—	—	—	—	—	9
California.....	62	8,113	—	7	—	2	—	68	—	—	3	308
Alaska.....	—	50	---	—	—	—	—	1	—	—	—	34
Hawaii.....	3	179	—	—	—	—	—	4	—	—	—	—
Puerto Rico.....	---	62	---	7	---	—	—	3	---	—	—	71
Virgin Islands.....	—	1	—	—	—	—	—	1	—	—	—	—

*Delayed reports: Typhoid fever: Ill. 1

Rabies in animals: Ark. 1

Week No.
48

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED DECEMBER 4, 1971

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	781	491	37	34	SOUTH ATLANTIC:	1,375	727	53	54
Boston, Mass.	227	132	8	9	Atlanta, Ga.	116	61	8	5
Bridgeport, Conn.	48	27	4	7	Baltimore, Md.	302	146	4	16
Cambridge, Mass.	41	33	8	-	Charlotte, N. C.	62	28	1	5
Fall River, Mass.	33	25	2	-	Jacksonville, Fla.	97	51	1	6
Hartford, Conn.	66	38	-	4	Miami, Fla.	144	75	2	2
Lowell, Mass.	26	13	-	1	Norfolk, Va.	81	40	8	3
Lynn, Mass.	21	14	4	1	Richmond, Va.	114	56	13	4
New Bedford, Mass.	24	19	-	-	Savannah, Ga.	40	20	2	2
New Haven, Conn.	66	35	-	5	St. Petersburg, Fla.	109	95	-	-
Providence, R. I.	65	43	4	2	Tampa, Fla.	75	40	10	2
Somerville, Mass.	16	15	3	-	Washington, D. C.	186	87	3	5
Springfield, Mass.	50	28	-	2	Wilmington, Del.	49	28	1	4
Waterbury, Conn.	26	21	-	2					
Worcester, Mass.	72	48	4	1					
MIDDLE ATLANTIC:	3,192	1,915	126	101	EAST SOUTH CENTRAL:	786	410	33	41
Albany, N. Y.	58	29	1	4	Birmingham, Ala.	169	88	4	8
Allentown, Pa.	28	21	2	-	Chattanooga, Tenn.	57	33	8	2
Buffalo, N. Y.	175	115	4	6	Knoxville, Tenn.	32	20	3	2
Camden, N. J.	58	35	2	4	Louisville, Ky.	127	70	6	7
Elizabeth, N. J.	58	33	3	1	Memphis, Tenn.	174	87	4	16
Erie, Pa.	44	24	5	1	Mobile, Ala.	55	23	1	3
Jersey City, N. J.	76	47	4	3	Montgomery, Ala.	60	36	3	1
Newark, N. J.	108	48	4	7	Nashville, Tenn.	112	53	4	2
New York City, N. Y.†	1,308	776	40	42	WEST SOUTH CENTRAL:	1,467	816	55	104
Paterson, N. J.	54	31	5	3	Austin, Tex.	46	28	5	1
Philadelphia, Pa.	595	338	16	10	Baton Rouge, La.	35	20	2	-
Pittsburgh, Pa.	218	125	13	8	Corpus Christi, Tex.	35	21	1	-
Reading, Pa.	29	23	1	-	Dallas, Tex.	201	100	3	9
Rochester, N. Y.	116	89	8	3	El Paso, Tex.	72	46	3	14
Schenectady, N. Y.	22	15	3	-	Fort Worth, Tex.	102	57	2	5
Scranton, Pa.	28	19	-	-	Houston, Tex.	265	131	10	37
Syracuse, N. Y.	92	60	1	7	Little Rock, Ark.	62	34	3	1
Trenton, N. J.	48	29	2	2	New Orleans, La.	186	111	3	8
Utica, N. Y.	37	30	8	-	Oklahoma City, Okla.	151	89	1	9
Yonkers, N. Y.	40	28	4	-	San Antonio, Tex.	156	87	7	13
EAST NORTH CENTRAL:	3,078	1,771	102	135	Shreveport, La.	65	36	4	4
Akron, Ohio	76	48	-	1	Tulsa, Okla.	91	56	11	3
Canton, Ohio	36	19	1	-	MOUNTAIN:	651	346	38	28
Chicago, Ill.	800	443	20	39	Albuquerque, N. Mex.	67	40	13	-
Cincinnati, Ohio	210	122	9	8	Colorado Springs, Colo.	37	20	7	7
Cleveland, Ohio	236	108	4	6	Denver, Colo.	238	119	4	3
Columbus, Ohio	190	106	6	9	Ogden, Utah	13	6	3	1
Dayton, Ohio	116	73	3	4	Phoenix, Ariz.	140	80	1	7
Detroit, Mich.	389	233	17	19	Pueblo, Colo.	30	22	9	1
Evansville, Ind.	37	27	3	1	Salt Lake City, Utah	57	26	-	8
Flint, Mich.	63	34	3	6	Tucson, Ariz.	69	33	1	1
Fort Wayne, Ind.	53	30	1	1	PACIFIC:	1,787	1,075	35	57
Gary, Ind.	31	11	2	1	Berkeley, Calif.	14	12	1	1
Grand Rapids, Mich.	54	34	3	2	Fresno, Calif.	63	35	1	4
Indianapolis, Ind.	220	127	6	12	Glendale, Calif.	33	22	2	1
Madison, Wis.	46	26	8	4	Honolulu, Hawaii††	55	27	1	4
Milwaukee, Wis.	157	107	2	5	Long Beach, Calif.	102	66	2	3
Peoria, Ill.	56	31	-	5	Los Angeles, Calif.	587	351	8	15
Rockford, Ill.	37	23	5	1	Oakland, Calif.	80	45	-	3
South Bend, Ind.	60	46	4	1	Pasadena, Calif.	46	31	2	1
Toledo, Ohio	132	78	3	5	Portland, Oreg.	116	83	1	3
Youngstown, Ohio	79	45	2	5	Sacramento, Calif.	80	40	-	4
WEST NORTH CENTRAL:	869	526	21	37	San Diego, Calif.	130	72	2	2
Des Moines, Iowa	51	30	2	1	San Francisco, Calif.	191	109	9	7
Duluth, Minn.	27	18	-	1	San Jose, Calif.	57	37	-	2
Kansas City, Kans.	39	17	-	-	Seattle, Wash.	151	95	3	2
Kansas City, Mo.	116	72	3	4	Spokane, Wash.	46	33	3	2
Lincoln, Nebr.	41	24	1	-	Tacoma, Wash.	36	17	-	3
Minneapolis, Minn.	108	59	2	10	Total	13,986	8,077	500	591
Omaha, Nebr.	72	42	1	2	Expected Number	13,032	7,516	495	586
St. Louis, Mo.	288	183	7	13	Cumulative Total (includes reported corrections for previous weeks)	610,375	350,302	22,002	27,319
St. Paul, Minn.	79	58	-	5					
Wichita, Kans.	48	23	5	1					
Las Vegas, Nev.*	28	13	-	-					

*Mortality data are being collected from Las Vegas, Nev., for possible inclusion in this table; however, for statistical reasons, these data will be listed only and not included in the total, expected number, or cumulative total, until 5 years of data are collected.

SHIGELLA - (Continued from page 437)

spond to therapy, however, and died on September 19. Cultures of stool and blood specimens revealed *Enterobacter hafnia*; no *Shigella* species were found. Although visits between the patient and friends from northern Sonora, Mexico, were considered possible, none could be documented.

On September 14, the woman's 13-month-old granddaughter became ill with severe bloody diarrhea. She was semicomatose when hospitalized and suffered a cardiac arrest on September 15. She was successfully resuscitated and transferred to another hospital in Tucson, where treatment with intravenous sodium ampicillin was started. She recovered slowly and was discharged on September 29. Infection with *Shigella dysenteriae* type 1 was confirmed the following day. The patient had never been out of the United States, but she had been exposed to her grandmother at the time of the latter's illness.

On September 30, the younger patient's eight immediate family members were contacted and interviewed. Rectal swabs were obtained for culture, and blood was obtained for serologic testing. The father and two siblings had had mild diarrhea 2 days prior to the onset of the younger patient's illness. Serum antibody to *S. dysenteriae* type 1 was present in two of these persons as well as in another sibling, who was asymptomatic. All stool cultures were negative for enteric pathogens.

On September 27, a woman from Bisbee, Arizona, (approximately 90 miles southeast of Tucson) experienced moderately severe diarrhea after eating food purchased in Naco, Sonora, Mexico. Seven days later, on October 4, her 8-year-old daughter had onset of nausea, vomiting, and bloody diarrhea. The child's condition deteriorated rapidly, and she was hospitalized in Tucson with evidence of renal failure. She

underwent emergency subtotal colectomy and required renal dialysis before responding to cephalothin and ampicillin therapy. *S. dysenteriae* type 1 was isolated from a stool specimen on October 12. Serum samples collected from the patient's family showed antibody titers to *S. dysenteriae* type 1 in the serum of her mother as well as of her father, who was asymptomatic.

There has been no evidence of interfamily or community spread of *S. dysenteriae* type 1. Epidemiologic investigations are continuing, however, and the medical community in southern Arizona has been alerted to the possibility of further cases.

(Reported by Otto Sieber, M.D., Assistant Professor of Pediatrics, University of Arizona Medical Center, Tucson; Philip M. Hotchkiss, D.V.M., State Epidemiologist, Arizona State Department of Health; and the Phoenix Laboratories, Ecological Investigations Program, CDC.)

Editorial Note

The clinical course of the 8-year-old child from Bisbee points up the importance of obtaining stool specimens and culturing them for *S. dysenteriae* type 1 in all cases of dysentery in persons who might have recently traveled to or had contact with persons who have been in Mexico or Central America. In the early stages of the Shiga dysentery epidemic in Central America, before the true nature of the disease was known, many patients underwent colostomies and a few colectomies due to misdiagnoses. The diseases most commonly mistaken for Shiga dysentery are amebiasis and acute ulcerative colitis. The organism responsible for the present epidemic is resistant to many antibiotics; however, it is quite sensitive to ampicillin.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

Address all correspondence to: Center for Disease Control
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